

## Buy Equity or Tokens -- Let's Do the Math

$$(5 - 5x) * (4x - (2 - 5y + 2x) + 2y) = 0$$

Like most venture capital firms, we've historically invested in equity. Sometimes in a note or a SAFE, but always with an eye toward converting to equity at some point in the future.

...but times have changed.

We made our first investment in a blockchain company (LBRY) in mid 2016. We purchased a note that would convert into equity. At the time, we weren't paying attention to the token value at all—in fact, we wondered whether the company should even have its own token. Was it even worth the extra complexity? To the credit of the founder, Jeremy Kauffman, he stuck to his guns—knowing that the LBC (LBRY Credit) was critical to aligning incentives and driving the growth of the network.

Earlier this year when LBC began actively trading (the company never did an ICO) and LBRY was suddenly sitting on tens of \$M worth of credits, it finally dawned on us that we were entering a new era of building and financing companies.

Most venture capital firms were not created with the idea of owning crypto-tokens, and ours was no exception. We convened our Advisory Board (essentially our Board of Directors, populated by entrepreneurs and experienced leaders from some of the nation's top VC firms) to discuss

the changes we were seeing the market. We were still focused on finding teams that were unstoppable, in pursuit of huge markets with big technology ideas—but in this blockchain world, it was no longer clear whether the value was in the equity or the token. Should we stick to our knitting and buy equity, or dare we start buying tokens directly? Or some hybrid?

Below, we share the thought process that led us to believe any of the above can work, and that at times, it makes sense for a venture fund to invest in tokens.

First, I'll note that there are two large buckets of reasons why someone would rather own equity in a company than tokens—1) investor protections and 2) economics.

The investor protections issue for us was pretty easy—after all, we are the firm that prefers to buy common stock in companies (we believe alignment is critical to success) so we don't expect or require the typical protections a venture investor would usually want (preference, anti-dilution, voting controls, dividends, etc.) We want to be aligned fully with the founders.

So what about economics?

Let's dive into a hypothetical example, a new company called CryptoCar intending to disrupt the ride-sharing market with a decentralized approach, all supported by a usage token, the CCAR.

Like most crypto networks, CryptoCar will not have any "revenue" in the traditional sense, nor any "cash flow" and as such, the value of equity, or more specifically the intrinsic value of stock, theoretically tied to the value of future cash flows of the company is....**ZERO**.

Full stop.

Any value in the company is because the company itself has assets (cash from the sale of tokens and more tokens). These assets which can be distributed directly (or sold for cash and distributed) out to shareholders on a pro-rata basis.

NOTE: The tax structure of the company (C Corporation or LLC) has a big impact on how efficiently these assets can be distributed to shareholders with LLC having far more favorable treatment.

Ok, now for some math:

### **Buying Equity**

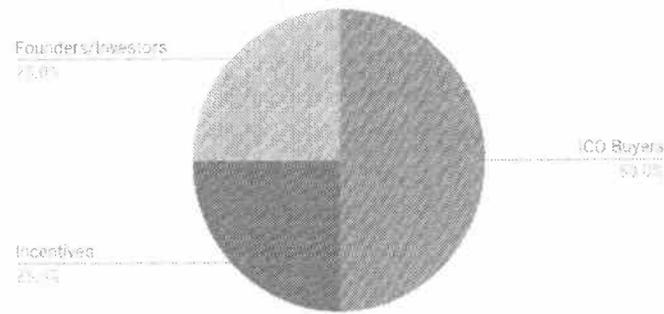
Let's say we invest \$2M at \$8M pre-money for 20% of the equity. It keeps the math simple.

Fast forward 6-12 months -- the company has built its protocol/product and completed some combination of SAFT, pre-sale and Initial Coin Offering (ICO).

What's the end result -- ie, the token distribution AFTER the ICO?

While there is no standard distribution of token ownership after an ICO, the pattern we've seen most often is:

- 50% of outstanding tokens sold through a combination of SAFT, pre-sale or ICO.
- 25% retained by the company to give to customers and partners to encourage network growth or sold to pay company expenses.
- 25% owned by the equity holders of the company (Founders and Investors)



As compared to a typical Initial Public Offering of stock which might only sell 20-25% of the shares of a company, ICO buyers want the network to be "independent" and often *insist* that 50% or more of the network is sold to investors.

Therefore, our 20% piece of the equity equates 20% of the 25% of tokens owned by Founders/Early Investors slice (yellow above) or 5% of the total and the founders own the other 20% of the tokens.

The ratio of what early investors own (us) to what the founders own is locked in at 20/80. We are aligned.

Importantly, this is independent of the size of the ICO -- whether \$5M<sup>1</sup>, \$20M, \$50M or \$100M if the ICO sells 50% of the tokens, our \$2M still buys 5% of the total tokens and the founders still end up with 20%.

<sup>1</sup> According to CB Insights, the average ICO in Q3 2017 was just shy of \$9M.

How much does the network need to be worth for an early investor to make money?

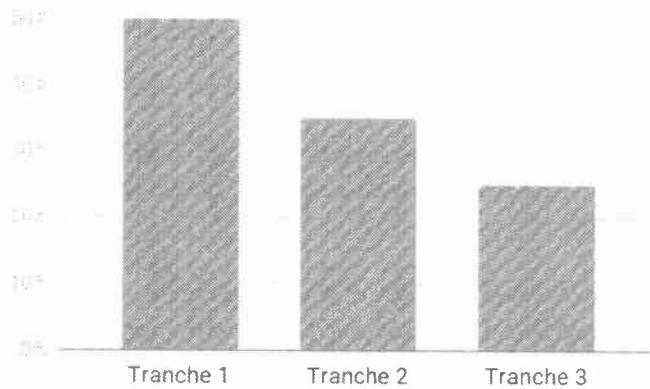
Network Value (M) Investment Multiple

\$40	1x
\$80	2x
\$200	5x
\$400	10x
\$1,000	25x

A network value of \$40M results in a 1x (this makes sense our \$2M bought 5% and  $\$2M/5\% = \$40M$ ).

### Buying tokens

CryptoCar might instead prefer to only sell CCAR tokens to investors through a SAFT ([Simple Agreement for Future Tokens](#)) or pre-sale right from the start. Often these pre-sales are done at a discount to the ICO price somewhere between 25%-50% depending on the tranche. Earliest investors get the biggest discount because they are assuming the most risk.



Assuming the same company setup, how would the math look if we purchased \$2M of tokens directly -- in the pre-sale (50% discount tranche).

Let's assume everything else is the same -- instead of a \$2M equity investment, the company did a \$2M SAFT. Assume that an ICO is selling 50% of total tokens. \$2M of which were sold at a 50% discount, and the rest was sold at the market price.

Now the economics for an Early Investor depend on the size of the ICO.

ICO	Total Network	% Acquired by
\$2M	\$40M	50%

Proceeds (\$M)	Value (\$M)	Early Investor
\$20	\$40	10%
\$40	\$80	5%
\$100	\$200	2%

Remember that earlier we effectively purchased 5% of the tokens through our purchase of 20% of the equity. Here's the range is 2-10% depending on ICO size. There are parallels here to buying a convertible note or SAFE with a discount to the series A. The point of negotiation with ICO buyers is often the maximum size of the offering, not the price.

So now, how much does the network have to be worth to earn an investment multiple, remember we bought in at a 50% discount.

ICO Proceeds (\$M)	Network Value at Launch	% Acquired by Early Investor	NETWORK VALUE REQUIRED TO EARN MULTIPLE				
			1	2	5	10	25
\$20	\$40	10%	\$20	\$40	\$100	\$200	\$500
\$40	\$80	5%	\$40	\$80	\$200	\$400	\$1,000
\$100	\$200	2%	\$100	\$200	\$500	\$1,000	\$2,500

The middle row of this chart (\$40M ICO Proceeds) has the same network values and multiples as the equity example earlier. There are two dimensions that matter at play.

- 1) If buying equity, the pre-money valuation
- 2) If buying SAFT, the size of the offering (and discount)

In comparing investments, remember that:

- the equity investments are independent of the size of the ICO, and
- the SAFT is independent of the pre-money (there is no equity sale).

	ICO PROCEEDS						
	10	20	30	40	50	100	
EQUITY PRE-MONEY	4	27.5%	7.5%	0.8%	-2.5%	-4.5%	-8.5%
	5	28.9%	8.9%	2.2%	-1.1%	-3.1%	-7.1%
	6	30.0%	10.0%	3.3%	0.0%	-2.0%	-6.0%
	7	30.9%	10.9%	4.2%	0.9%	-1.1%	-5.1%
	8	31.7%	11.7%	5.0%	1.7%	-0.3%	-4.3%
	9	32.3%	12.3%	5.6%	2.3%	0.3%	-3.7%
	10	32.9%	12.9%	6.2%	2.9%	0.9%	-3.1%
	12	33.8%	13.8%	7.1%	3.8%	1.8%	-2.3%

How to read - the box with the square, a \$4M equity investment at \$8M pre-money results in 5% less token ownership than a \$4M SAFT (with 50% discount) that converts into a \$30M ICO.

### The Takeaway

Our firm was founded on the idea of Alignment of interests between Founders and Investors. We are more interested in alignment around upside enhancement than we are in investor and downside protection.

If the company fails, the stock is worthless.

If the network fails, the token is worthless.

If the network succeeds, the token (and through company owned tokens, the equity) is valuable.

***Netted out, we want to own what the founders care about.***

If it is a company where the value is clearly in the token, we want to buy tokens. The math above would suggest this is often the right move.

If it is a company where it is unclear to us or the founders whether the value is in the equity or the token, we want to buy equity and have the same access rights to tokens that the founders have. This keeps us aligned.



